

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

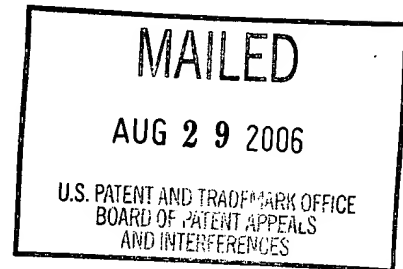
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex Parte MARCOS N. NOVAES, GREGORY D. LAIB, RONALD T. GOERING,
JEFFREY S. LUCASH, PETER R. BADOVINATZ and MICHAEL A. SCHMIDT

Appeal No. 2006-0707
Application No. 09/583,677

ON BRIEF



Before THOMAS, KRASS and MACDONALD, Administrative Patent Judges.

MACDONALD, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-3 and 6-76. Claims 4 and 5 have been canceled.

Invention

Appellants' invention relates to a method, system, and program storage device for managing clusters of a computing environment. The managing being performed by a registry component provide global data storage for data of a cluster of the computing environment, the cluster including one or more nodes of the computing environment; a configuration component to maintain data locally on at least one node of the one or more nodes, and to

store global data in the registry component; a liveness component to provide status of one or more communications paths of the cluster, the liveness component being dependent upon the registry component and the configuration component; a group services component to provide one or more services to one or more other components of the cluster, the group services component being dependent on the registry component, the configuration component and the liveness component; and a resource management component to provide communications to one or more resource controllers of the cluster, the resource management component being dependent on the registry component, the configuration component and the group services component.

Claim 1 is representative of the claimed invention and is reproduced as follows:

1. A system of managing clusters of a computing environment, said system comprising:

a registry component to provide global data storage for global data of a cluster of said computing environment, said cluster including a plurality of nodes of said computing environment and said global data comprising configuration data of multiple nodes of the plurality of nodes;

a configuration component to maintain data locally on at least one node of said plurality of nodes, and to store global data in said registry component;

a liveness component to provide status of one or more communications paths of said cluster, said liveness component being dependent upon said registry component and said configuration component;

a group services component to provide one or more services to one or more other components of said cluster, said group services component being dependent on said registry component, said configuration component and said liveness component; and a resource management component to provide communications to one or more resource controllers of said cluster, said resource management component being

dependent on said registry component, said configuration component and said group services component.

References

The references relied on by the Examiner are as follows:

Wipfel et al. (Wipfel)	US 6,338,112	January 8, 2002 Filed May 18, 2000
Thorbjornsen	WO 96/37837	November 28, 1996

Rejections At Issue

Claims 1-3 and 6-75 stand rejected under 35 U.S.C. § 102 as being anticipated by Wipfel.

Claim 76 stands rejected under 35 U.S.C. § 103 as being obvious over the combination of Wipfel and Thorbjornsen.

Throughout our opinion, we make references to the Appellants' briefs, and to the Examiner's Answer for the respective details thereof.¹

OPINION

With full consideration being given to the subject matter on appeal, the Examiner's rejections and the arguments of the Appellants and the Examiner, for the reasons stated infra, we affirm the Examiner's rejection of claims 1-3, 6-20, 27-44, 51-68, and 75 under 35 U.S.C. § 102; we affirm the Examiner's rejection of claim 76 under 35 U.S.C. § 103; and

¹ Appellants filed an appeal brief on January 24, 2005. Appellants filed a reply brief on June 30, 2005. The Examiner mailed an Examiner's Answer on April 25, 2005.

Appeal No. 2006-0707
Application No. 09/583,677

we reverse the Examiner's rejection of claims 21-26, 45-50, and 69-74 under 35 U.S.C. § 102.

Appellants have presented arguments in this appeal with respect to the claims in seven groupings:

Claims 1, 27, and 51 as Group I (further including claims 2, 3, 6-20, 28-44, 52-68, and 75 which depend therefrom and are not separately argued);

Claims 21, 45, and 69, as Group II;

Claims 22, 46, and 70, as Group III;

Claims 23, 47, and 71, as Group IV;

Claims 24, 48, and 72, as Group V;

Claims 25, 49, and 73 as Group VI (further including claims 26, 50, and 74 which depend therefrom and are not separately argued); and

Claim 76 as Group VII.

We will, thereby, consider Appellants' claims as standing or falling together in the seven groups noted above, and we will treat:

Claim 1 as a representative claim of Group I;

Claim 21 as a representative claim of Group II;

Claim 22 as a representative claim of Group III;

Claim 23 as a representative claim of Group IV;

Claim 24 as a representative claim of Group V; and

Claim 25 as a representative claim of Group VI.

I. Whether the Rejection of Claims 1-3, 6-20, 27-44, 51-68, and 75 Under 35 U.S.C. § 102 is proper?

It is our view, after consideration of the record before us, that the disclosure of Wipfel does fully meet the invention as recited in claims 1-3, 6-20, 27-44, 51-68, and 75.

Accordingly, we affirm.

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. See In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

With respect to independent claim 1, Appellants argue at page 7 of the brief, “[i]f a component is dependent on another component, then that component is reliant or contingent upon the other component.” We agree. However, we find such in the Wipfel patent. As the Examiner correctly points out at page 10 of the answer at lines 5-6, such dependencies are inherent. Even the most cursory review of Wipfel shows that each component is reliant or contingent on the others, i.e., if any component fails, then the system (the other components) fails. Appellants’ claim 1 requires no more than this.

Appellants also argue at page 8 of the brief that in Wipfel “a register is not a registry component” because “[Wipfel’s register] does not include global configuration data [as claimed].” We disagree.

Appellants admit at page 8 that Wipfel’s register stores information regarding a particular node. That is, Wipfel teaches storing nonfunctional descriptive material in the

form of information regarding a particular node. Even assuming Appellants' argument to be correct that Wipfel does not teach nonfunctional descriptive material in the form of information regarding global configuration, nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. In re Ngai, 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004). Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability).

Common situations involving nonfunctional descriptive material are:

- a computer-readable storage medium that differs from the prior art solely with respect to nonfunctional descriptive material, such as music or a literary work, encoded on the medium,
- a computer that differs from the prior art solely with respect to nonfunctional descriptive material that cannot alter how the machine functions (i.e., the descriptive material does not reconfigure the computer), or
- a process that differs from the prior art only with respect to nonfunctional descriptive material that cannot alter how the process steps are to be performed to achieve the utility of the invention.

Thus, if the prior art suggests storing a song on a disk, merely choosing a particular song to store on the disk would be presumed to be well within the level of ordinary skill in the art at the time the invention was made. The difference between the prior art register and

the claimed registry component is simply an arrangement of nonfunctional descriptive material.

Therefore, we will sustain the Examiner's rejection under 35 U.S.C. § 102.

II. Whether the Rejection of Claims 21-26, 45-50, and 69-74 Under 35 U.S.C. § 102 is proper?

It is our view, after consideration of the record before us, that the disclosure of Wipfel does not fully meet the invention as recited in claims 21-26, 45-50, and 69-74. Accordingly, we reverse.

With respect to dependent claim 21, Appellants argue at page 9 of the brief, "there is no [description or teaching] in Wipfel of a configuration component starting these other components in [the claimed] order." We agree. Contrary to the Examiner's position at page 11 of the answer, we do not find the claimed order to be inherent. While such an order might be argued to be obvious for the reasons set forth by the Examiner, we see no basis for finding that the claimed order is required (inherent).

Claims 22-26 depend from claim 21 and the disclosure of Wipfel does not fully meet the invention as recited in claims 22-26 for at least the reason discussed above with respect to claim 21.

Therefore, we will not sustain the Examiner's rejection under 35 U.S.C. § 102.

III. Whether the Rejection of Claim 76 Under 35 U.S.C. § 103 is proper?

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the invention as set forth in claim 76. Accordingly, we affirm.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). See also In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. Oetiker, 977 F.2d at 1445, 24 USPQ2d at 1444. See also Piasecki, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. “In reviewing the [E]xaminer’s decision on appeal, the Board must necessarily weigh all of the evidence and argument.” Oetiker, 977 F.2d at 1445, 24 USPQ2d at 1444. “[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency’s conclusion.” In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

With respect to dependent claim 76, Appellants argue at page 15 of the brief, claim 76 is patentable over the prior art because “Wipfel explicitly uses shared resources and is not concerned at all with a shared nothing environment.” We disagree. Thorbjornsen was used to teach the shared nothing environment. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 426, 208 USPQ 871, 882 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

Appellants also argue, “Wipfel teaches away from the combination” because “the modification of Wipfel ... would destroy the intended functions of Wipfel that specifically teaches the use of shared resources.” We disagree. If Wipfel were directed solely to improving shared resource management, then we might find Appellants’ argument persuasive. However, such is not the case.

Wipfel teaches that “managed resources include cluster nodes themselves, as well as sharable resources” (abstract). Further, Wipfel specifically stated at lines 37-40 of column 8, “processors 216, memories 218 and 220, sharable resources 212 and 222, shared disk 114, backup link 206 (if any), and other cluster components are resources that must be efficiently managed to make clusters cost-effective.” We find that this list includes both shared and non-shared resources.

Wipfel goes on at column 8 to state “[g]ood cluster resource management includes method and tools for (a) detecting failures, (b) compensating for failures, and (c) reallocating sharable resources.” Appellants point to nothing in Wipfel that precludes (teaches away)

from implementing the improved management of the non-shared resources (included in (a) and (b) above) separate from the improved management of shared resources ((c) above). We conclude that the teachings of Wipfel provide sufficient motivation to combine the references without any resort to hindsight as also argued by Appellants.

We also find that contrary to Appellants' contention at page 7 of the reply, Wipfel and Thorbjornsen are not directed to "vastly different environments." Rather, these references are directed to the same field of endeavor. We conclude that a balanced characterization of the field of Appellant's endeavor is resource management in a node or cluster based system. The Wipfel and Thorbjornsen references fall squarely within this field of endeavor. We presume full knowledge by the inventor of all prior art in the field of his endeavor. In re Wood, 599 F.2d 1032, 1036 (C.C.P.A. 1979). Therefore, the teachings of the Wipfel reference are properly combinable with the teachings of the Thorbjornsen reference based on their same field of endeavor.

Therefore, we will sustain the Examiner's rejection under 35 U.S.C. § 103.

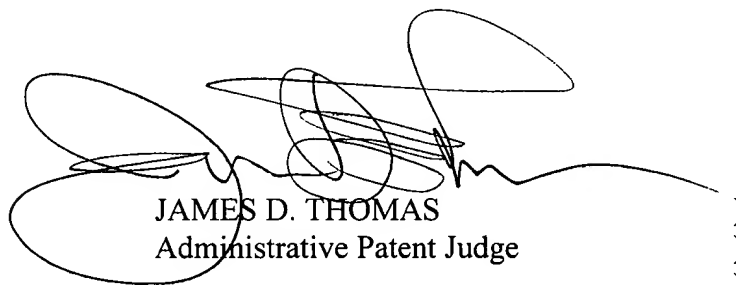
Conclusion

In view of the foregoing discussion, we have sustained the rejection under 35 U.S.C. § 102 of claims 1-3, 6-20, 27-44, 51-68, and 75; we have sustained the rejection under 35 U.S.C. § 103 of claim 76; we have not sustained the rejection under 35 U.S.C. § 102 of claims 21-26, 45-50, and 69-74.

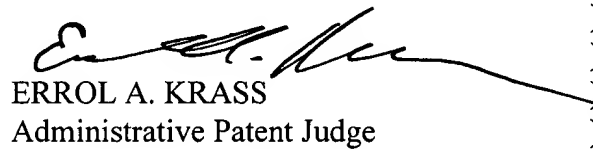
Appeal No. 2006-0707
Application No. 09/583,677

AFFIRMED-IN-PART

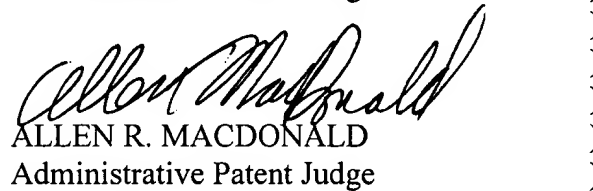
No time period for taking any subsequent action in connection with this appeal may
be extended under 37 C.F.R. § 1.136(a)(1)(iv).



JAMES D. THOMAS
Administrative Patent Judge



ERROL A. KRASS
Administrative Patent Judge



ALLEN R. MACDONALD
Administrative Patent Judge

)
)
)
)
) **BOARD OF PATENT**
) **APPEALS AND**
) **INTERFERENCES**
)
)
)
)

ARM/rwk

Appeal No. 2006-0707
Application No. 09/583,677

HESLIN ROTHENBERG FARLEY & MESITI P.C.
5 COLUMBIA CIRCLE
ALBANY, NY 12203